

TROPICAL RAINFALL MEASURING MISSION

December 4, 2000 – December 10, 2000

DOY 339 - 345

Day of Mission 1103 - 1109

TRMM MISSION OPERATIONS

- TRMM is flying in the -X Forward direction as of November 13th (00-318) at 19:17:00z.
- Yaw maneuver #50 is scheduled for December 15th (00-350).
- Delta-V #258 is scheduled for December 14th (00-349), using the ISP thrusters.
- The Beta angle range for 00-346 to 00-352 is -16.4° to $+7.4^{\circ}$.
- The next Monthly Status Review (MSR) is scheduled for January 3rd (01-003).
- The next End of Life Planning meeting is scheduled for January 27th (01-027).
- The next Flight Software CCB meeting is scheduled for December 14th (00-349).
- 21 days remain until Extended Mission science operations begin on January 1st, 2001.
- The new TRMM Mission Director is Vickie Moran, effective December 4, 2000.

TRMM SUBSYSTEM OPERATIONS

Attitude Control System (ACS)

00-341 (Wednesday, December 6th)

Delta-V maneuver #256 was successfully conducted at 15:39:53z and 16:25:43z for durations of 40.500 and 24.250 seconds respectively, using the ISP thrusters. The off-modulation of the -Pitch thruster (#6) for burn 1 and 2 was 38.0% and 33.0% (62.0% and 67.0% on time). The remaining fuel is 487.257 kg, and the final apogee and perigee height is 354.89 km x 347.58 km.

00-345 (Sunday, December 10th)

Delta-V maneuver #257 was successfully conducted at 15:36:10z and 16:22:01z for durations of 44.500 and 24.000 seconds respectively, using the ISP thrusters. The off-modulation of the -Pitch thruster (#6) for burn 1 and 2 was 36.5% and 33.3% (63.5% and 66.7% on time). The remaining fuel is 485.656 kg, and the final apogee and perigee height is 354.93 km x 347.45 km.

Flight Data System (FDS)/Command & Data Handling (C&DH)

The UTCF remains 31535996.834676 seconds. The current drift value is $-622 \mu\text{s}$. The FS offset is $x'7ae'$ with a current drift rate of $-2.51 \mu\text{s/hr}$.

Reaction Control Subsystem (RCS)

The RCS subsystem performed nominally during this period. See the ACS section for specific Delta-V information.

Power Subsystem

The Power subsystem performed nominally during this period.

Electrical Subsystem

The Electrical subsystem performed nominally during this period.

Thermal Subsystem

The Thermal subsystem performed nominally during this period.

Deployables Subsystem

The Deployables subsystem performed nominally during this period.

RF/Communications Subsystem

The RF/Communications subsystem performed nominally during this period.

SPACECRAFT INSTRUMENTS

CERES

CERES remains powered OFF, following the original PSIB anomaly on September 16th (00-261). The CERES instrument will be powered ON again on December 14th (00-349), during the 17:54z SN event.

LIS

The LIS instrument performed nominally during this period.

PR

The PR instrument performed nominally during this period.

The list of Internal Calibration times over Australia in which PR was not radiating is shown below:

2000-339/08:57:25z - 09:00:41z
2000-339/15:27:45z - 15:29:59z
2000-340/15:50:26z - 15:52:34z
2000-341/14:38:44z - 14:40:56z
2000-342/06:58:22z - 07:01:23z
2000-342/15:01:34z - 15:03:41z
2000-343/13:50:06z - 13:52:16z
2000-344/06:07:55z - 06:12:59z
2000-344/14:13:07z - 14:14:53z
2000-345/13:01:00z - 13:03:10z

TMI

The TMI instrument performed nominally during this period.

VIRS

The VIRS instrument performed nominally during this period.

GROUND SYSTEM

Work has started which will configure one of the GSFC Building 14 SOTA Bays into a System Software test string and a backup telemetry, command, and control facility for the Building 32 TRMM MOC. This will be modeled on the configuration which was in place for TRMM L&IOC.

Event Reports

No new events occurred this period.

Generic Late Acquisition Reports (for TTRs 19639)

#75: TDRS 171/SSA1 343/2026z event. 2min 6 sec late acquisition - all data recovered.

New Anomalies

No new anomalies occurred during this period.

Recurring/Open Anomalies

No open anomalies recurred during this period.

Prepared by:
Andy Calloway
TRMM Systems Engineer

Approved by:
Lou Kurzmillier
FOT Manager